REMARKS/ARGUMENTS

Favorable reconsideration is requested in view of the above amendments and the following remarks.

Claims 1-17 are pending and claims 12-17 have been withdrawn.

OBJECTION TO THE DRAWINGS

A replacement sheet is attached in which legends have been added to FIGURE 3. The examiner is respectfully requested to approve these changes.

OBJECTION TO THE SPECIFICATION

The title of the invention has been objected to as not descriptive. Therefore please change the title of the invention to: "AN INTERFACE DEVICE PROVIDING AN INTERFACE BETWEEN TESTING EQUIPMENT AND AN INTEGRATED CIRCUIT".

The disclosure has been objected to for not containing the proper section headings. These section headings have now been added by amendment to the specification in the amendments above.

The application has been objected to for not containing an Abstract. We have attached an Abstract with content copied from the abstract of PCT Application (WO 00/074108A3), of which the present application is the US National Phase. The Abstract is fully supported by the application as originally filed.

CLAIM REJECTIONS - 35 USC 112

Claims 1-5 and 10-11 were rejected under the second paragraph of 35 USC 112 as being indefinite. The rejection asserts that the specification does not point to the claim limitation "body member" in claim 1 which recites "a guide member mounted on the body member...". Actually, the "body member" limitation finds support at page 3, line 2 of the specification and it clearly covers the "ring 1" described at page 7, line 3 of the specification. Therefore the examiner is respectfully requested to withdraw this rejection.

CLAIM REJECTIONS - 35 USC 102

Claims 1-3, 6-8 and 10-11 have been rejected under 35 USC 102(b) as being anticipated by US Patent 5,532,613 to Nagasawa et al.

Claim 1 as currently amended is no longer anticipated by Nagasawa. In particular, Nagasawa does not disclose that the "width of each contact end being less than the width of the respective aperture to permit lateral movement of each contact end within the respective aperture". Figure 3 of Nagasawa does not show this feature, as the figure is misleading. Actually, the probe needles 30 of Nagasawa penetrate through the guide plates 22a, 23a "in a frictional manner" (column 5, lines 35 and 38). The holes of Fig. 3 are presumably just drawn as wider to make the diagram clearer. Indeed, this is the whole point of Nagasawa: his invention seeks to overcome a problem which is mentioned in col. 1, line 50 – col. 2, line 8, namely if needles are fixed to a guide plate, they tend to bend when the guide plate is deformed and may contact each other electrically. Nagasawa proposes that this problem is solved by providing an insulating layer on the surface of the needles. This would make much less sense if the needles were free to move within the guide plates 22a, 23a, because in that case, deformation of the guide plates would not lead to bending of the needles. Thus, Nagasawa is not in fact particularly relevant to claim 1.

In addition, claim 1 has been amended to include the features:

"a number of elongate contact members, each elongate contact member comprising a metal wire with a diameter of less than or equal to 10 mil (250μm) having a contact end adapted to contact a bond pad of an integrated circuit to be tested, and a body portion coupled to the body member; and

a guide member mounted on the body member, the guide member comprising a substantially planar member comprised of a glass material and having a number of apertures therein".

The small diameter of the contact members allows for higher pitch densities for the pins to be achieved as explained at the third paragraph of page 9 of the specification. None of the prior art of record shows this feature in combination with the other clamed features.

The use of glass material for the guide member provides a solution to the problem of abrasion. In the process of using a laser to drill the slot, or elongated hole, the glass anneals around the surface of the hole providing a smooth, shiny and nonporous surface to the needle and subjects the needles to little in the way of abrasion. Additionally, the transparency of glass

provides a view through to the area being probed. None of the prior art of record shows this feature in combination with the other claimed features. These comments apply to dependent claims 2 and 3.

As for claims 6 and 10, the rejection asserts that the friction reducing coating is shown in Nagasawa, at col. 8, lines 15 where it refers to the needle being coated with "Inconel (a Ni-Cr alloy) with a thin layer of gold". Actually this is not a friction reducing coating at all. It is the surface of the base metal under the gold that dictates the smoothness of the gold plated surface. Additional steps would have to be taken if the gold were to be used as a "filler" to smooth the finished surface. However, this would not be a good solution to provide a reduced friction surface as the gold would wear away. In Nagasawa, the gold is most likely being used as a conductor and for no other purpose. The use of Ni-Cr as a base is a traditional method to keep the gold from permeating into the base metal of the needle, but it too cannot be used to fill a rough surface.

Claims 2, 3, 7, 8 and 11 depend from claims 1, 6 and 10 and should therefore also be allowed.

CLAIM REJECTIONS - 35 USC 103

Claims 4-5 have been rejected under 35 USC 103(a) in view of combinations of Nagasawa and U.S. Patent 4,812,745 to Kern. However, neither Nagasawa, Kern alone or when combined with each other or any other prior art of record either anticipates or renders obvious the claimed feature of the "width of each contact end being less than the width of the respective aperture to permit lateral movement of each contact end within the respective aperture". Moreover, no combination of the references teaches or suggests this feature combined with the small diameter of the contact members the use of glass material for the guide member as recited in the claims as amended.

Claim 9 has been rejected under 35 U.S.C. § 103(a), over Nasagawa. Reconsideration is requested in view of the dependency of claim 9 on claim 1 and for the reasons discussed above as to the allowability of claim 1. The choice of material in Nasagawa still does not suggest Applicant's choices claimed in claims 1 and 9.

CONCLUSION

It is submitted that the rejected claims are allowable in view of the claim amendments and arguments herein. Applicants submit herewith a request a 3-month extension of time.

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on March 3, 2004:

Robert C. Faber

Name of applicant, assignee or Registered Representative

Signature

March 3, 2004

Date of Signature

Respectfully submitted,

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